

Refinishing Procedures

1. Featheredging (polishing damaged areas)

Damage to metal surface

- Sand the damaged area flat and smooth with a double action sander and #60 or #80 disc paper.
- Sand the boundary between the metal surface and undercoat with a double action sander and #180 or #280 disc paper. Try to sand a larger area than the damage.

NOTE:

- Make sure there is no height difference between the metal surface and undercoat.
- If double action sander is not available, use a rubber block and wrap sandpaper around it to sand the surface.

⚠ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

Damage to Undercoat

Intermediate coat

Top coat

Paint coat on replacement parts

Sand the damaged surface flat and smooth with a double action sander and #280 or #320 paper.

NOTE:

- If double action sander is not available, use a rubber pad and wet or dry sand the surface with #280, #320, #400, or #600 sandpaper.
- After sanding, check that the surface is flat and smooth.
- Perform the operations provided in "damage to metal surface" above for the areas where parts are welded to the body.

2. Preparation of metal surface.

Remove all corrosion from the damaged area using a #180 or #280 paper.

3. Air Blowing/Degreasing

- Air blow the sanded area, then degrease with a wax and grease remover.
- Use the following materials:

- 38125 Enamel Reducer (Dupont)
- Spies Hecker Silicon Remover (Hoechst)
- Standex Silicon Remover (Herberts)

⚠ WARNING

- Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm², 30psi) air nozzle.
- Wear goggles or safety glasses to prevent eye injury.

4. Treatment of metal surface

- Brush or spray a solution of chrome phosphate or washer primer on the exposed metal surface.
- Use the following materials to treat the metal surface:
 - 2145 Kwik-Prep TM (Dupont)
 - 6155/6165 Vari Prim self Etching Primer TM (Dupont)
 - Spies Hecker Priomat 1:1 Wash Primer 3688 (Hoechst)
 - Standex Etching Adhesion Primer (Herberts)

NOTE:

- Follow the manufacturer's instructions.
- Treat the metal surface, as much as possible, to provide a better bonding surface for the subsequent paint.

5. Application of Filler, Drying and Sanding

- Small cracks or pinholes in the sheet metal should be repaired with a filler and sanded flat and smooth.

NOTE:

- Mix the putty with the hardener in the correct ratio.
- Follow the filler manufacturer's instructions.

(cont'd)

Paint

Refinishing Procedures (cont'd)

⚠ WARNING: Body parts being dried with an industrial dryer can get hot enough to cause injury. Do not touch parts being dried.

- Allow the filler to air dry for about 5-6 minutes, then force dry with an infrared lamp.

NOTE: Keep the lamp 40-50 cm (16-20 in) from the filler while drying.

- Stop drying the filler if a white mark appears when the surface is scratched with your nail. Wet or dry sand the surface flat and smooth with a #280 or #320 sand paper.

6. Air Blowing/Degreasing

- Blow the surface to be repaired with compressed air, then degrease with a wax and grease remover.
- Use the following materials:
 - 38125 Enamel Reducer (Dupont)
 - Spies Hecker Silicon Remover (Hoechst)
 - Standox Silicon Remover (Herberts)

NOTE: Also clean and degrease surfaces where masking tape will be attached.

7. Masking

Mask the areas surrounding the damage to prevent overspray from the primer.

8. Application and Drying of Primer/Drying

⚠ WARNING:

- **Ventilate when spraying paint.** Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.
- **Avoid contact with skin.** Wear an approved respirator, gloves, eye protection, and appropriate clothing when painting.
- **Paint is flammable.** Store it in a safe place, and keep it away from sparks, flames, or cigarettes.
- Spray the primer over the filler and surface (use epoxy or urethane 2-part primer).
Spray : 2-3 coats.

- Use the following materials:
 - 615S Primer Surfacer (DuPont)
 - Primer Surfacer EP (Akzo)
 - NPS735 Urethane Primer Surfacer (R-M)
 - Spies Hecker Permacron HS Surface (Hoechst)
 - Standox 2K HS Filler (Herberts)
- **Let the primer air dry for 5-10 minutes, then force dry with a infrared lamp.**

NOTE: Keep the dryer 40-50 cm (16-20 in) from the surface.

9. Application of Polishing Undercoat

- **Remove the masking paper and tape.**
- **Check that the undercoat has dried thoroughly, then dry or wet sand the surface with a #280 or #320 sand paper.**

NOTE:

- **Use a rubber block and sand flat and smooth.**
- **Sand the entire surface to be refinished.**

10. Air Blowing/Degreasing

⚠ WARNING:

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm², 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**
- **Blow all the surfaces with compressed air then degrease with a wax and grease remover.**
- Use the following materials:
 - 38125 Enamel Reducer (Dupont)
 - Spies Hecker Silicon Remover (Hoechst)
 - Standox Silicon Remover (Herberts)

NOTE: Also degrease the surfaces where masking tape will be attached.

11. Masking

Mask the undamaged areas surrounding the damage to prevent overspray from primer surfacer (undercoat).

NOTE: Use masking tape and paper to mask the body. A vinyl cover may also be used to effectively mask the body.

12. Application of Intermediate Coat (same color as enamel) top coat spraying/drying

▲ WARNING

- **Ventilate when spraying paint.** Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.
- **Avoid contact with skin.** Wear an approved respirator, gloves, eye protection and appropriate clothing when painting.
- **Paint is flammable.** Store it in a safe place, and keep it away from sparks, flames or cigarettes.
- Use the same color paint as the top coat. Spray it over the surface until the undercoat (primer surface) is fully covered.
- **Spray the paint slightly thicker than normal to allow for loss during subsequent polishing.**
 - Super ponacle II (R-M)
 - Super Centri (Dupont)
 - Auto cryl (Akzo)
 - Spies Hecker Permacron 2k Acrylic Top Coat (Hoechst)
 - Stadox Standocryl 2K (Herberts)

13. Polishing of Intermediate Coat

- Check that the paint coat has dried thoroughly, then dry or wet sand the surface with a #600 and #800 sand paper.

NOTE: Use a rubber block to sand flat and smooth, being careful not to expose the undercoat.

Polishing of Top Coat (if damaged):

Use the same technique described above.

14. Air Blowing/Degreasing

▲ WARNING

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm², 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**
- Blow the entire surface with compressed air then degrease with wax and grease remover,
- **Use the following materials:**
 - 38125 Enamel Reducer (Dupont)
 - Spies Hecker Silicon Remover (Hoechst)
 - Stadox Silicon Remover (Herberts)
- For shading or spot painting, polish the area with a polishing compound. Sand with a #2000 paper to give a better bonding surface for the subsequent paint.

15. Masking

- **Remove all existing masking paper, then mask with new paper,**
- **Use a heat resistant type masking tape (SCOTCH TAPE)** where tape is attached directly to the body.
- Use brown paper or masking roll paper to cover.

NOTE:

- Mask the area surrounding the damage sufficiently to prevent overspray. It is also a good practice to use a vinyl cover to protect other areas,
- **Protect resin parts with aluminum foil under the brown paper or masking paper to prevent damage due to heat during baking.**

16. Application of Top Coat Spraying/Drying

- Prior to putting the vehicle in the painting booth, thoroughly clean the interior and spray water over the floor. Be careful about blowing dust and dirt.

▲ WARNING

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm², 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**
- Blow with compressed air and degrease the surface before spraying the paint. Also clean the surface with a tack cloth.

▲ WARNING

- **Ventilate when spraying paint.** Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.
- **Avoid contact with skin.** Wear an approved respirator, gloves, eye protection, and appropriate clothing when painting.
- **Paint is flammable.** Store it in a safe place, and keep it away from sparks, flames, or cigarettes.
- Spray color matched top coat over the prepared surface. Apply 2-3 coats in two directions until the intermediate coat is fully covered.

NOTE: For application of the top coat, refer to step 12 "Application of Intermediate Coat."

Solid color: Color enamel + Color clear coat

Metallic color: Metallic enamel + Clear coat

Pearl color: Pearl enamel + Clear coat

(cont'd)

Paint

Refinishing Procedures (cont'd)

⚠ WARNING Body parts being dried with an industrial dryer can get hot enough to cause injury. Do not touch parts being dried.

- After spraying, allow the paint to settle for about 10 minutes, then force dry with an infrared lamp.
- NOTE: Follow the paint manufacturer's instructions.

17. Polishing/Buffering

- Let the paint dry gradually, then polish the surface carefully using a polishing compound and sponge buff.
- To remove lint or dirt, wet sand the surface with #2000 sand paper or finer first, then polish with compound.

NOTE: Polish all roughness caused by sanding thoroughly. To do this, first polish with very fine compound, then with ultra fine compound.

- After polishing, remove the masking paper and tape, then wash the entire vehicle thoroughly.